

SEQUENCE LISTING

COPY

<110> Dixon, Richard A.
Xia, Yiji
Lamb, Christopher

<120> CONSTITUTIVE DISEASE RESISTANCE (CDR1)
GENE AND METHODS OF USE THEREOF

<130> SALK2820-1

<140> 09/353,332

<141> 1999-07-14

<150> 60/092,696

<151> 1998-07-14

<160> 3

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 4839

<212> DNA

<213> Arabidopsis thaliana

<220>

<221> CDS

<222> (1111)...(2421)

<400> 1

```

ggacattctt ggtctactcc aagaatatca aagatccagt ctcagaagac cagagggcta      60
ttgagacttt tcaacaaagg gtaatatcgg gaaacctcct cggattccat tgcccagcta      120
tctgtcactt catcgaaagg acagtagaaa aggaagatgg cttctacaaa tgccatcatt      180
gcgataaagg aaaggctatc gttcaagatg cctctaccga cagtgggtccc aaagatggac      240
ccccccac gaggaacatc gtggaaaaag aagacgttcc aaccacgtct tcaaagcaag      300
tggattgatg tgatatcaaa gatgcgagag ttattttatt ttaattgtac tatatttata      360
ttgtgatggt tctcttaaat taaaaattta tgactatata tatgacaata tatatatata      420
tatatatata tatatacatt attgagatag ataataaata cattagttaa tcattaaatt      480
taataggtac tgatcttcaa attattttca aacgattctc tgtcaatttc ttgatatttt      540
taaaactaaa tccatttttt aaaaaataga ctgatttaac aaacattaaa agttaattgt      600
ttctgtacat gccacggatc gaaaatgagt cagtaaatga atatttttta cctaaagtca      660
cacattgtat atacctaagt aaatgatata gacaaaattt agaagatcaa gaatccttat      720
attacgaaaa tatccggtta cattcgttga atactttaat gaagaatcta ggatataatt      780
aaagaagaag aaaatatgta agcattttaga aataaaataa cttggagata taagcaaacc      840
ataaacacgt ccatatgaat gaatggtaca ctccctgtaa ataaataaat atatgcatca      900
aaatgagaaa atcttcactt ttatttattc ttaatacgtc agattctctg aacacaaaat      960
gatataattt gtagataact tactcaaaac gtaagaactc actatctatt atcatattt      1020
aaccaccatc tcattaatct tataaatatg tactcattag attgtcaaaa gtaaaacctc      1080
acaatacact ttaaactaca aatcaaaaaca atg gcc tct cta ttc tct tca gtt      1134
Met Ala Ser Leu Phe Ser Ser Val

```

1

5

```

ctc ttg tct ctt tgt tta ctc tct tca ctt ttt ctc tca aat gca aac      1182
Leu Leu Ser Leu Cys Leu Leu Ser Ser Leu Phe Leu Ser Asn Ala Asn
10 15 20

```

```

gct aag cca aaa cta ggc ttc acc gcg gat cta atc cac cgt gat tct      1230

```

FASTSEQ FOR WINDOWS

1278

1326

1374

1422

1470

1518

1566

1614

1662

1710

1758

1806

1854

1902

1950

Figure 1. Schematic representation of the experimental design. The subjects were divided into two groups: the control group (n = 10) and the intervention group (n = 10). The control group received a standard diet (SD) and the intervention group received a low-carbohydrate diet (LCD). The subjects were followed up for 12 weeks. The primary outcome was the change in body weight (kg) and the secondary outcome was the change in blood glucose (mmol/L). The subjects were also followed up for 12 weeks after the intervention. The subjects were then divided into two groups: the control group (n = 10) and the intervention group (n = 10). The control group received a standard diet (SD) and the intervention group received a low-carbohydrate diet (LCD). The subjects were followed up for 12 weeks. The primary outcome was the change in body weight (kg) and the secondary outcome was the change in blood glucose (mmol/L). The subjects were also followed up for 12 weeks after the intervention.

Asn Ala Ile Val Ser Gly Ser Gly Val Val Ser Thr Pro Leu Ile Ala
265 270 275 280

aag gcg tct caa gag acc ttc tat tac cta acc cta aaa tcc att agc 1998
Lys Ala Ser Gln Glu Thr Phe Tyr Tyr Leu Thr Leu Lys Ser Ile Ser
285 290 295

gtg gga agc aag caa atc caa tac tca ggc tca gat tct gaa agc agc 2046
Val Gly Ser Lys Gln Ile Gln Tyr Ser Gly Ser Asp Ser Glu Ser Ser
300 305 310

gag gga aac atc atc atc gat tca ggc aca act tta acg tta tta ccg 2094
Glu Gly Asn Ile Ile Ile Asp Ser Gly Thr Thr Leu Thr Leu Leu Pro
315 320 325

act gaa ttt tac tcc gag ctc gag gat gcg gtt gca tcc tct atc gat 2142
Thr Glu Phe Tyr Ser Glu Leu Glu Asp Ala Val Ala Ser Ser Ile Asp
330 335 340

gct gag aag aag caa gat cca caa agc ggt ttg agt cta tgt tac agt 2190
Ala Glu Lys Lys Gln Asp Pro Gln Ser Gly Leu Ser Leu Cys Tyr Ser
345 350 355 360

gca acc gga gat cta aaa gtt cca gtc att act atg cat ttt gat gga 2238
Ala Thr Gly Asp Leu Lys Val Pro Val Ile Thr Met His Phe Asp Gly
365 370 375

gcc gat gtg aag ctt gac tcc tcc aat gcc ttt gta caa gtc tcg gag 2286
Ala Asp Val Lys Leu Asp Ser Ser Asn Ala Phe Val Gln Val Ser Glu
380 385 390

gat ttg gtt tgc ttt gcc ttc cgc gga agc ccg agt ttc tcc ata tac 2334
Asp Leu Val Cys Phe Ala Phe Arg Gly Ser Pro Ser Phe Ser Ile Tyr
395 400 405

ggt aat gtg gcg cag atg aac ttt ctt gtt gga tac gac act gtt tcc 2382
Gly Asn Val Ala Gln Met Asn Phe Leu Val Gly Tyr Asp Thr Val Ser
410 415 420

aaa acg gtg tca ttt aag cca aca gat tgt gca aag atg tagttgtttc 2431
Lys Thr Val Ser Phe Lys Pro Thr Asp Cys Ala Lys Met
425 430 435

atctcaacat gtttttcaaa attgtgtttt caattacaat aatggctgat ttagtttcag 2491
ccttagttct tttgaatttt tctaattcac atgtagtagt ctatcttttc aaggagagat 2551
taaattctcg accttttggt cttttggtga tgctttgtat ttcttgaat tttcaatcac 2611
aattaaaatc atgaaaacct tatctccggt aactattttc ttgtccatct ctatactctg 2671
ttttagttta taatcatctc tatgatgtaa accaaatatg acaagacaat tctataattt 2731
tgttcaaaat ttagtttttt ttttcatttt actaataaaa tctagaaata ctacttttgt 2791
gtctattata ttattgtgat gaaatactta taagaaacag atgaatgtga ttctaattca 2851
atattgcttt taaggaatta tattggtcct actattctat tttgatgtgt tctatatttt 2911
actatattca atgggattat ggattataga aatattttga aaatattata ctattattta 2971
taaataattc aattagtttt tcttcttaag tttcttataa aaaataaata tatcttataa 3031
gaaataaata tattttatat ttcataaaaa tcatacattg tacatatcta ggtggatgat 3091
acatggccta aattagatca tgaatcataa aaatccagct gtagataaac ataacaagga 3151
tgaatggtac aatcctggtc aaaaaaaata aaaggaaaag ttatatgcat taaaatgaga 3211
aaatcttcgc ttttattggt tcttatttat cagattctct aaatgtaaat gacacaattt 3271
gtagataatt tactaaaaat gtaagaatct catcatgtac taccatttat gaatccttat 3331
ccaattgacc ttataaatat tactcatcag attgtcaaaa gtaaaaactg accattcagg 3391
caatcactta aactacaatc taagaaaatg gcctctctat tcacttcact tctcttgtct 3451

```

ctatgtttat tctctttctcc tattttctca aacgcaaacg ccaaaccaaa actaggttc 3511
accgcggatc tgatccaccg cgattctcct aaatcgccat tctataaccc ggcggaaacc 3571
ccttcccaac gtatgagaaa cgctatccac cgatccttta accgtgcttc ccatttcagt 3631
aatctttttg aaaaggatgc atcacttaac gcaccacaaa ctgatatcac caaatatttc 3691
ggtatatatc ttatgaacgt atcccttggg agttgggaca cctcccgccc caatcatggc 3751
ggccgctgac accggaagtg atctcatctg gacgcagtgc aaaccatgcg atgattgtta 3811
cactcaagtt gatcctctct ttgaccctaa agcgtcttcc acatacaaaag acgtttcttg 3871
cccctcaagc caatgtaggg ctctaaaaga tgatgcttct tgttccaaaa aagacaacac 3931
ttgctcttac tcaatgaatt acgggggataa ctcatactca cggggtaatg tgcgtgtgga 3991
taccttaacg ctccgctcca ccgataaccg tccggtgcag gttagaataa ttatcatcgg 4051
ttgtggtcac gaaaacgctg taacatttag aaacaagagc tctggaatcg ttggacttgg 4111
tgggtggcg gtttcgctcg ttaaacaact cggagactcc atcgaaggta aattctcata 4171
ctgcttggtta cctgaaaatg atcaaacgag caagattagt ttcggaacca atgcggttgt 4231
gtcgggaccg ggaactgtct caactccttt ggtcgtgaag tctccagaga ccttctatatt 4291
tctaacccta aaatctatta ccgtgggaag caagaatatg ccaaccccag gctctgatat 4351
caagggaac atggtcatcg attcgggcac aactctaact ctgttacctg ggaaatatta 4411
tttccagatt gagagtgcgt ttgcgtcttt aatcgatgca gagaggtcga aagatgaaag 4471
aatcggttcg agtctttgat acaatgcaac cgcagatctg aaagtcccag tcattactat 4531
gcatttcgat ggagcagatg tgaagcttga ttcctataat tcatttttta aagtctcaga 4591
tgatttggtt tgctttgcct ttggcttgaa cttgattacg agggatggga tatacgggaa 4651
tgtggcgag aagaactttc ttgttgata cgacactgtt tccaaatcgt tgtcatttaa 4711
aaaaacagat tgtgcaaaga tgtagatggg tcagcttagc atgtggctaa tttccttttt 4771
tcaaaagtat gttttcagtt atcattatgg ctgatttgat tttagcctta aaatagttat 4831
ttgaattc 4839

```

<210> 2

<211> 437

<212> PRT

<213> Arabidopsis thaliana

<400> 2

```

Met Ala Ser Leu Phe Ser Ser Val Leu Leu Ser Leu Cys Leu Leu Ser
 1              5              10              15
Ser Leu Phe Leu Ser Asn Ala Asn Ala Lys Pro Lys Leu Gly Phe Thr
 20              25              30
Ala Asp Leu Ile His Arg Asp Ser Pro Lys Ser Pro Phe Tyr Asn Pro
 35              40              45
Met Glu Thr Ser Ser Gln Arg Leu Arg Asn Ala Ile His Arg Ser Val
 50              55              60
Asn Arg Val Phe His Phe Thr Glu Lys Asp Asn Thr Pro Gln Pro Gln
 65              70              75              80
Ile Asp Leu Thr Ser Asn Ser Gly Glu Tyr Leu Met Asn Val Ser Ile
 85              90              95
Gly Thr Pro Pro Phe Pro Ile Met Ala Ile Ala Asp Thr Gly Ser Asp
 100             105             110
Leu Leu Trp Thr Gln Cys Ala Pro Cys Asp Asp Cys Tyr Thr Gln Val
 115             120             125
Asp Pro Leu Phe Asp Pro Lys Thr Ser Ser Thr Tyr Lys Asp Val Ser
 130             135             140
Cys Ser Ser Ser Gln Cys Thr Ala Leu Glu Asn Gln Ala Ser Cys Ser
 145             150             155             160
Thr Asn Asp Asn Thr Cys Ser Tyr Ser Leu Ser Tyr Gly Asp Asn Ser
 165             170             175
Tyr Thr Lys Gly Asn Ile Ala Val Asp Thr Leu Thr Leu Gly Ser Ser
 180             185             190
Asp Thr Arg Pro Met Gln Leu Lys Asn Ile Ile Ile Gly Cys Gly His
 195             200             205
Asn Asn Ala Gly Thr Phe Asn Lys Lys Gly Ser Gly Ile Val Gly Leu
 210             215             220
Gly Gly Gly Pro Val Ser Leu Ile Lys Gln Leu Gly Asp Ser Ile Asp

```

COPY

5

225 230 235 240
 Gly Lys Phe Ser Tyr Cys Leu Val Pro Leu Thr Ser Lys Lys Asp Gln
 245 250 255
 Thr Ser Lys Ile Asn Phe Gly Thr Asn Ala Ile Val Ser Gly Ser Gly
 260 265 270
 Val Val Ser Thr Pro Leu Ile Ala Lys Ala Ser Gln Glu Thr Phe Tyr
 275 280 285
 Tyr Leu Thr Leu Lys Ser Ile Ser Val Gly Ser Lys Gln Ile Gln Tyr
 290 295 300
 Ser Gly Ser Asp Ser Glu Ser Ser Glu Gly Asn Ile Ile Ile Asp Ser
 305 310 315 320
 Gly Thr Thr Leu Thr Leu Leu Pro Thr Glu Phe Tyr Ser Glu Leu Glu
 325 330 335
 Asp Ala Val Ala Ser Ser Ile Asp Ala Glu Lys Lys Gln Asp Pro Gln
 340 345 350
 Ser Gly Leu Ser Leu Cys Tyr Ser Ala Thr Gly Asp Leu Lys Val Pro
 355 360 365
 Val Ile Thr Met His Phe Asp Gly Ala Asp Val Lys Leu Asp Ser Ser
 370 375 380
 Asn Ala Phe Val Gln Val Ser Glu Asp Leu Val Cys Phe Ala Phe Arg
 385 390 395 400
 Gly Ser Pro Ser Phe Ser Ile Tyr Gly Asn Val Ala Gln Met Asn Phe
 405 410 415
 Leu Val Gly Tyr Asp Thr Val Ser Lys Thr Val Ser Phe Lys Pro Thr
 420 425 430
 Asp Cys Ala Lys Met
 435

<210> 3

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic peptide utilized for antibody
 production; segment of SEQ ID NO:2

<400> 3

Asp Thr Val Ser Lys Thr Val Ser Phe Lys Pro Thr Asp Cys

1

5

10

Foot Blast